

6.1 Arthurs Creek Land System

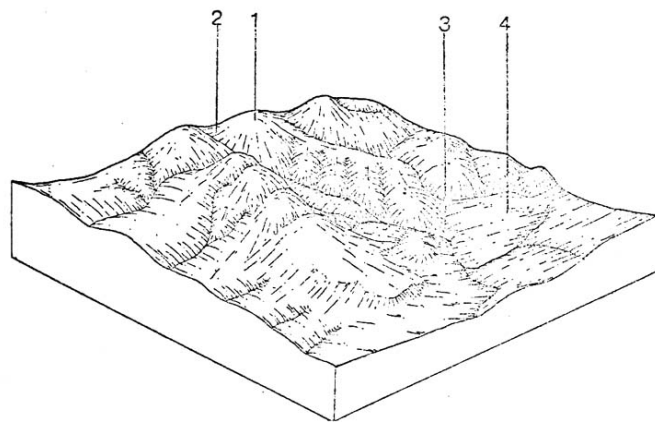


It covers approximately 199.3 km² or 7.8% of the survey area. The landscape is of low hills.

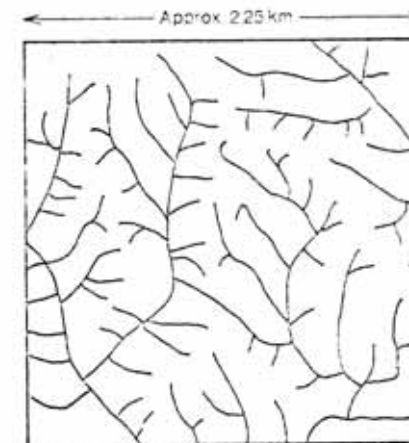
The vegetation of exposed areas such as crests and slopes with a northerly aspect, is a woodland with Long-leaf Box, Red Box, Red Stringybark and Narrow-leaf Peppermint being the predominant trees. Red Ironbark occurs in small patches usually on older soils.

As well as the soils given in the table there is also a red duplex soil on the slopes and a grey clay of uniform texture along drainage lines.

This land system has a high erosion hazard due to the hard-setting surfaces which tend to increase runoff, and the dispersible clay subsoils.



Schematic Block Diagram



Drainage Pattern

COMPONENT Proportion %	1 15	2 15	3 5	4 65
CLIMATE Rainfall (av.) Temperature (av.) Seasonal growth limitations	Annual: 660-990 mm (monthly range: October 70 mm - January 45 mm) Annual: 13°C (monthly range: January 20°C - July 9°C) Temperature: less than 100C June- August Precipitation: less than potential evapotranspiration November - March			
GEOLOGY Age, rock	Silurian sandstone, mudstone, shale			
TOPOGRAPHY Landscape Elevation (range) m Local relief (av.) m Drainage pattern Drainage density km/km ² Land form Slope (av.) %, slope shape	Low hills 60 - 180 60 Dendritic 6.4 Crest and upper elope 20; convex Upper drainage line 10; concave Lower drainage line 5; concave Lower slope 6; straight			
NATIVE VEGETATION Structure Dominant species	Open forest <i>E. polyanthemus, E. goniocalyx, E. macrorhyncha</i> <i>E. polyanthemus, E. melliodora, E. goniocalyx, E. camaldulensis</i> <i>E. rubida, E. camaldulensis, E. viminalis</i> <i>E. melliodora</i>			
SOIL Parent Material Description Factual Key Surface Texture Permeability Depth (av.) m	In situ weathered rock Alluvium Shallow stony brown gradational soils Gn 2.94 Loam High 0.5 Mottled yellow, brown gradational soils Gn 2.41 Loam Low 2.0 Mottled yellow, brown gradational soils Gn 2.41 Loam Low 2.0 Mottled yellow, brown sodic duplex soils, coarse structure Dy 3.22 Clay loam Moderate 1.0			
LAND USE	Grazing, occasional cropping (orchards)			
SOIL DETERIORATION HAZARD Critical land features Processes Forms	Slope gradient, hard setting surfaces, dispersibility Overland flow, subsurface flow Sheet and rill erosion	Dispersibility, hard setting surfaces, seasonal high watertable Overland flow, subsurface flow, periodic waterlogging Tunnel and gully erosion	Dispersibility, hard setting surfaces, seasonal high watertable Overland flow, subsurface flow, periodic waterlogging Tunnel and gully erosion	Hard setting surfaces, dispersibility, slope gradient Overland flow, subsurface flow Tunnel and gully erosion